

U. S. Department of Energy
Oak Ridge, TN 37831

Date: June 1, 1998

To: Prospective Offerors

SUBJECT: Request for Proposals (RFP) No. DE-RP05-98OR22587
National "Technology Specific" Geothermal Heat Pump Super Energy Savings
Performance Contract (GHP Super ESPC)

You are invited to submit a proposal to the United States Department of Energy (DOE) to provide geothermal heat pump (GHP) - centered energy savings services to federally owned facilities in the 50 states, District of Columbia, and U.S. Territories. This cover letter is a summary of the salient elements of the acquisition. However, this cover letter is not an integral part of the RFP; and in the event of any inconsistency between this letter and the enclosed RFP, the RFP data shall govern. In addition, you are cautioned that the only person you may contact prior to contract award is the designated DOE point of contact listed in Part IV - Section L, Provision L.7 of the RFP.

Period of Performance

The contract period of performance will be for a base term of twenty-five (25) years with an initial ordering period ending April 9, 2000, (See Clause B.5).

Contract Type Contemplated

It is intended that the contract will be a fixed price indefinite delivery/indefinite quantity contract for energy savings services pursuant to the terms and conditions of the RFP. Sections A through J of this RFP represent the contract and will be the basis for the contractual relationship between DOE and the solicited offerors. More specifically, Clauses H.12 through H.17 prescribe the procedures that will be used in implementing, evaluating, selecting and awarding each delivery order. Each of these provisions, and the remaining provisions of the RFP should be examined carefully before submitting proposals. Blank areas, indicated by "****" appearing throughout the RFP will be completed at time of award.

Government Furnished Property

It is anticipated that the contractor's principal place of performance will be the contractor's facilities to be named within the offeror's proposal.

The Government does not anticipate furnishing Government Property or Facilities for performance. However, federal agency sites may make property and facilities available for implementation of their delivery order projects (e.g., equipment purchased by the Government but not yet installed, staging areas, areas for temporary site offices, etc.).

Set-Aside Information

This acquisition sets aside one award for qualified small businesses.

Site Data Packages

One actual project serves as part of the basis for this procurement. Instructions for obtaining a copy of the "initial project" site data package with site-specific information are set forth in Part IV, provision L.13.

Proposal Preparation Instructions

Proposal Preparation Instructions are set forth in Part IV - Section L.

Proposal Evaluation

Proposal Evaluation shall be in accordance with the criteria set forth in Part IV - Section M.

Proposal Due Date, Time and Place Designated for Receipt

Proposal due date, time and place designated for receipt of proposals and external marking instructions are set forth in Part IV - Section L, provision L.9.

Award on Initial Offers

The Government intends to evaluate proposals and award a contract without discussions with offerors (except communications conducted for the purpose of minor clarification). Therefore, each initial offer should contain the offeror's best terms from a technical and price standpoint.

Ordering Period Limitation

Offerors should take note of the ordering period limitation clause in Section H that states that the ordering period may end at the end of the five year legal authority that commenced with the issuance of the regulation on Energy Savings Performance Contracting on April 10, 1995. The Government intends to modify the contract to extend the ordering period specified in Clause B.5, "Ordering" at a future date.

DOE Point of Contact

Any questions must be submitted in writing via: an e-mail message to Hartap@oro.doe.gov or fax to (423) 241-2549 or mail to Angela Carroll Hart to arrive in accordance with Clause L.23, "Questions Concerning the Solicitation". Each question should clearly specify the solicitation area (Attachment number, page, etc.) to which it refers. Please reference on e-mail and faxes, or mark the outside of the mailed envelope "**SOLICITATION QUESTIONS - SOLICITATION NO. DE-RP05-98OR22587**" to expedite handling.

Your interest in the Department's solicitation is appreciated. Should you need any further assistance please contact Angela Carroll Hart at (423) 576-0999.

Sincerely,

Sylvia G. Galde
Contracting Officer

Attachment:

National "Technology-Specific" Geothermal Heat Pump Super ESPC Summary

NATIONAL "TECHNOLOGY-SPECIFIC" GEOTHERMAL HEAT PUMP SUPER ESPC SUMMARY

The purpose of this introduction is to outline the major sections and intent of this Super Energy Savings Performance Contract (ESPC) Solicitation and provide an overview of the proposal process. In order to correctly and sufficiently submit a proposal to this solicitation it is **STRONGLY RECOMMENDED** that the entire document be read.

The purpose of this solicitation is to provide the option of GHP-centered energy and maintenance cost savings to federal agency sites in the entire U.S., the District of Columbia, and U.S. Territories while at the same time minimizing the risk of misapplication of this relatively new family of technologies. GHP-centered ESPC projects are implemented as delivery orders against the national indefinite delivery indefinite quantity (IDIQ) contracts awarded as a result of this procurement. Multiple contractors are desired to maintain competition for delivery orders, as desired or required by participating agencies, and to provide enough contractor capacity to fulfill energy services requirements of all federal agencies. Generally, one contractor will be awarded a delivery order for work at a participating agency project site.

All delivery order projects will be centered on geothermal heat pump (GHP) systems (also referred to as geo-exchange systems, ground-coupled systems, groundwater systems, surface water systems, and standing column well systems) but may include other energy cost saving measures (ECMs). The other ECMs must be complementary to the GHP systems and in the same buildings, or be necessary to assure that the federal site captures all of the economically-obtainable cost savings possible from the GHP-centered project.

Federal agencies choosing to place delivery orders under the awarded IDIQ contracts will enter into a memorandum of understanding with the Department of Energy (DOE) to establish the organizational relationships, responsibilities, and activities during such delivery orders. The DOE Procurement Contracting Officer (PCO) anticipates delegating signature authority to a CO in the ordering agency unless there is a compelling reason not to do so. The participating agency contract administration office will monitor the construction and maintenance phases and be responsible for making payments to the contractor as required under the terms and conditions of the contract.

The GHP Super ESPC Solicitation has been limited to an ordering capacity for all delivery orders against all IDIQ contracts not to exceed \$500,000,000. Each delivery order award value is calculated as the sum of payments to the contractor. As required by the Federal rules regarding ESPC contracts, this contract may not exceed 25 years. The effect of this requirement is to shorten the maximum length of any delivery order to the remaining years left in the Super ESPC contract at the time of delivery order award.

This solicitation is based on one "initial project" which will be the first delivery orders placed against one of the awarded IDIQ contracts. Since the number of IDIQ contracts to be awarded exceeds the number of "initial projects", each contractor awarded an IDIQ contract under this solicitation will not receive an "initial project" delivery order. However, each contractor is guaranteed at least one delivery order for the minimum value of \$150,000 during the contract ordering period.

The contractor shall receive monthly payments based on the annual fixed payment schedule as established in each delivery order. Each delivery order includes a site-specific measurement and verification methodology to verify that the guaranteed level of annual cost savings is delivered. The annual fixed payments may be adjusted if the end of year verification indicates that the installed geothermal heat pump systems and associated energy conservation measures (ECMs) failed to deliver the guaranteed level of annual energy cost savings. Such adjustments shall be made to the next year's payments for the previous year shortfall and for the anticipated shortfall for the next year. These adjustments shall be made until the contractor can submit evidence, approved by the Contracting Officer for the delivery order, indicating that the performance problems causing the shortfall have been corrected. The annual payments made to the contractor, in any case, may not exceed the annual energy and maintenance savings created by implementation of the delivery order.

The RFP is divided into the twelve standard sections of a federal competitive procurement. The required proposal format is explained in Section L. The proposal is composed of three basic Volumes. Volume I contains general documents that must be completed by each offeror. In Volume II - Technical Proposal, the offeror will outline in detail (Part I) its experience with energy efficiency contracting, geothermal heat pumps, and the associated ECMs that may also be included in GHP-centered projects. Further, each offeror will outline its ability to organize and accomplish Section C outlined tasks when presented with a delivery order. Part II of this volume will ask the offeror to demonstrate its ability to develop best value projects for the Government by selecting the best GHP options for the "initial project" and proposing a specific GHP-centered project including associated ECMs in other required technology categories. The Volume III - Price Proposal follows a similar format but requests information on the offeror's pricing structure in Part I and then asks that this structure be applied to the ECM's offered for the "initial project" in Part II. In summary, Part I of Volumes II and III asks for the general approach and pricing the offeror will use on each delivery order, and Part II of both Volumes asks that these parameters be applied to the "initial project".

Due to the expected number of offerors for this solicitation, all site specific technical and price proposals must be based on the initial project's Site Data Package (SDP) and an optional walk-through tour conducted during the proposal development period. No facility access beyond the informational tours described below will be allowed. Specifically, the RFP is based on one real site, but in order to properly evaluate the proposals we have limited the scope and site conditions to those defined in the RFP. This has the effect of detaching the proposals from site conditions which may differ, or have changed, from those described in the RFP and is necessary to ensure that all offerors have the same information so that bids can be evaluated with optimum objectivity. Furthermore, if the successful offeror selected to implement the "initial project" finds site conditions to differ or have changed in any way from the RFP, these differences will be worked out in the delivery order process.

See Sections L and M for complete details concerning the preparation and submittal of your proposal and its respective evaluation.

As explained in Section L.12, site tours have been planned in order to familiarize prospective offerors with the "initial project" sites. As indicated in Section L these tours are not required in order to prepare the site specific proposals since the proposal is to be based only on the information contained in the SDP. Since each tour group must be limited in size, a number of tours is scheduled. You must complete the tour reservation form included in Section L (Attachment D) in order to reserve a tour space. Each company will be limited to three tour participants in order to provide tour spaces for the anticipated number of offerors. The tour reservation form should be completed and returned to the tour coordinator as soon as possible. The tours will be conducted on June 17, 1998.

The technical library for this procurement includes the SDP, which contains narrative, drawings, and data on the "initial project" target buildings, site information, energy use data, and information on existing energy-consuming systems. The technical library also includes such things as the wage determinations and bond forms. Due to the volume of the technical data and the variety of formats, the technical library has been made available from a 24-hour copy center in Knoxville, TN. Kinko's Copies will provide the technical library information upon request. Cost for the technical library reproduction and shipping will be the responsibility of the offeror. The order instructions and contact information are located in Section L.13 of the solicitation.

SOLICITATION, OFFER AND AWARD

1. THIS CONTRACT IS A RATED ORDER

RATING

PAGE OF

A-1 | M-1 PAGES

2. CONTRACT NO.

3. SOLICITATION NO.

DE-RP05-98OR22587

4. TYPE OF SOLICITATION

☐ SEALED BID (IFB)☒ NEGOTIATED (RFP)

5. DATE ISSUED

June 1, 1998

6. REQUISITION/PURCHASE NO.

05-98OR22587.000

7. ISSUED BY

CODE |

8. ADDRESS OFFER TO (If other than Item 7)

U.S. Department of Energy
Oak Ridge Operations Office
Procurement and Contracts Division
P.O. Box 2001, Attn: Angela Carroll Hart
Oak Ridge, TN 37831-8753

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

SOLICITATION

9. Sealed offers in original and * copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if handcarried, in the depository located in the lobby of the Federal Building, Oak Ridge, TN. until 4:00p.m. local time July 28, 1998 *SEE CLAUSES L-9 (Hour) (Date)
CAUTION - LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-1. All offers are subject to all terms and conditions contained in this solicitation.

10. FOR INFORMATION

A. NAME

Angela Carroll Hart

B. TELEPHONE NO. (Include area code) (NO COLLECT CALLS)

423-576-0999

11. TABLE OF CONTENTS

(X)	SEC.	DESCRIPTION	PAGE(S)	(X)	SEC.	DESCRIPTION	PAGE(S)
PART I - THE SCHEDULE				PART II - CONTRACT CLAUSES			
X	A	SOLICITATION/CONTRACT FORM	A-1	X	I	CONTRACT CLAUSES	I-1
X	B	SUPPLIES OR SERVICES AND PRICES/COST	B-1	PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACH.			
X	C	DESCRIPTION/SPECS./WORK STATEMENT	C-1	X	J	LIST OF ATTACHMENTS	J-1
X	D	PACKAGING AND MARKING	D-1	PART IV - REPRESENTATIONS AND INSTRUCTIONS			
X	E	INSPECTION AND ACCEPTANCE	E-1	X	K	REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS	K-1
X	F	DELIVERIES OR PERFORMANCE	F-1				
X	G	CONTRACT ADMINISTRATION	G-1	X	L	INSTR., CONDS., AND NOTICES TO OFFERORS	L-1
X	H	SPECIAL CONTRACT REQUIREMENTS	H-1	X	M	EVALUATION FACTORS FOR AWARD	M-1

OFFER (Must be fully completed by offeror)

NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within _____ calendar days (180 calendar days unless a different period is inserted by the offeror) from the date for receipt of offers specified above, to furnish any or all items which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT

N/A

10 CALENDAR DAYS

%

20 CALENDAR DAYS

%

30 CALENDAR DAYS

%

CALENDAR DAYS

%

14. ACKNOWLEDGMENT OF AMENDMENTS

(The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated:

AMENDMENT NO.

DATE

AMENDMENT NO.

DATE

15A. NAME AND ADDRESS OF OFFEROR

CODE

FACILITY

16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)

15B. TELEPHONE NO. (Include area code)

15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENCE FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE.

17. SIGNATURE

18. OFFER DATE

AWARD (To be completed by Government)

19. ACCEPTED AS TO ITEMS NUMBERED

20. AMOUNT

21. ACCOUNTING AND APPROPRIATION

22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION:

☐ 10 U.S.C. 2304(c)() ☐ 41 U.S.C. 253(c)()

23. SUBMIT INVOICES TO ADDRESS SHOWN IN See Clauses G-2 and G-3

ITEM

24. ADMINISTERED BY (If other than Item 7)

CODE |

25. PAYMENT WILL BE MADE BY

CODE |

26. NAME OF CONTRACTING OFFICER (Type or print)

27. UNITED STATES OF AMERICA

28. AWARD DATE

(Signature of Contracting Officer)

IMPORTANT - Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

TABLE OF CONTENTS

SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS.....	B-1
B.1 ITEMS BEING ACQUIRED/TOTAL PRICE (May 1998).....	B-1
B.2 REQUIRED SERVICES (May 1998).....	B-1
B.3 52.216-22 INDEFINITE QUANTITY. (OCT 1995).....	B-1
B.4 52.216-19 ORDER LIMITATIONS. (OCT 1995).....	B-2
B.5 52.216-18 ORDERING. (OCT 1995).....	B-2
B.6 MAXIMUM MARGINS(May 1998)	B-3
B.7 FINANCE CHARGE (May 1998)	B-4
SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT.....	C-1
C.1 GENERAL REQUIREMENTS/PROJECT SCOPE (May 1998).....	C-1
C.2 ENERGY CONSERVATION MEASURES (ECMs) (May 1998)	C-1
C.3 FACILITY PERFORMANCE REQUIREMENTS OF ECMs (May 1998).....	C-4
C.4 MEASUREMENT AND VERIFICATION OF ECM PERFORMANCE (May 1998).....	C-5
C.5 INSTALLATION REQUIREMENTS FOR ECMs (May 1998)	C-8
C.6 OPERATION OF ECMs (May 1998).....	C-11
C.7 MAINTENANCE OF ECMs (May 1998).....	C-12
C.8 REPAIR OF ECMs (May 1998)	C-13
C.9 CONTRACTOR MAINTENANCE AND REPAIR RESPONSE TIME (May 1998)	C-13
C.10 OPERATIONS AND MAINTENANCE MANUALS AND TRAINING FOR ECMs (May 1998).....	C-14
C.11 GOVERNMENT PROJECTS (May 1998).....	C-14
C.12 UTILITY ENERGY EFFICIENCY/RENEWABLE PROJECT FINANCIAL INCENTIVES (May 1998).....	C-14
SECTION D - PACKAGING AND MARKING	D-1
D.1 PACKAGING (Alternate I) (May 1997)	D-1
D.2 MARKING (May 1997).....	D-1
D.3 RESPONSIBILITY (May 1998).....	D-1
D.4 DELIVERY AND STORAGE (May 1998)	D-1
SECTION E - INSPECTION AND ACCEPTANCE.....	E-1
E.1 INSPECTION (May 1997).....	E-1
E.2 ACCEPTANCE (FEB 1987).....	E-1
E.3 52.246-12 INSPECTION OF CONSTRUCTION. (AUG 1996).....	E-1
E.4 INSPECTION AND ACCEPTANCE OF INSTALLED ECMs (May 1998).....	E-2
E.5 52.246-4 INSPECTION OF SERVICES - FIXED-PRICE. (AUG 1996).....	E-3
E.6 52.246-20 WARRANTY OF SERVICE (APR 1984)	E-3
SECTION F - DELIVERIES OR PERFORMANCE.....	F-1
F.1 PERIOD OF PERFORMANCE OF INDEFINITE DELIVERY/INDEFINITE QUANTITY (IDIQ) CONTRACT AND DELIVERY ORDERS (May 1998).....	F-1
F.2 PRINCIPAL PLACE OF PERFORMANCE (May 1998).....	F-1
F.3 DELIVERABLES (May 1998).....	F-1
SECTION G - CONTRACT ADMINISTRATION DATA.....	G-1
G.1 CORRESPONDENCE PROCEDURES (May 1998)	G-1
G.2 BILLING INSTRUCTIONS (May 1998).....	G-2
G.3 INVOICES (May 1998).....	G-2
G.4 PAYMENT TO THE GOVERNMENT FOR ANNUAL COST SAVINGS SHORTFALL (May 1998).....	G-3
G.5 DISPOSITION OF ANNUAL COST SAVINGS OVERAGES (May 1998)	G-4
G.6 DOE CONTRACTING OFFICER'S REPRESENTATIVE (COR) ADDRESS (JAN 1990).....	G-4
G.7 CONTRACT ADMINISTRATION FOR THE GOVERNMENT (May 1998).....	G-4

SECTION H - SPECIAL CONTRACT REQUIREMENTS.....	H-1
H.1 CONSECUTIVE NUMBERING (MAY 1997).....	H-1
H.2 52.217-2 CANCELLATION UNDER MULTIYEAR CONTRACTS (OCT 1997) INCORPORATED BY REFERENCE.....	H-1
H.3 CONFIDENTIALITY OF INFORMATION (May 1997).....	H-1
H.4 REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF THE OFFEROR (May 1997).....	H-2
H.5 TECHNICAL DIRECTION (MAY 1997).....	H-2
H.6 MODIFICATION AUTHORITY (May 1997).....	H-3
H.7 GOVERNMENT PROPERTY AND DATA (May 1998).....	H-3
H.8 SMALL, SMALL DISADVANTAGED, AND WOMAN-OWNED SMALL BUSINESS SUBCONTRACTING PLAN (MAY 1997).....	H-3
H.9 ORDERING PERIOD LIMITATION (May 1998).....	H-3
H.10 FLOWDOWN OF SAFETY AND HEALTH CLAUSE (May 1997).....	H-3
H.11 QUALITY ASSURANCE SYSTEM (May 1997).....	H-4
H.12 DELIVERY ORDER REQUEST FOR PROPOSAL AND DELIVERY ORDER FORMATS (May 1998).....	H-4
H.13 PROCEDURES FOR AWARDING DELIVERY ORDERS (May 1998).....	H-6
H.14 REQUIREMENTS FOR PROPOSAL CONTENTS FOR GOVERNMENT-IDENTIFIED DELIVERY ORDERS (MAY 1998).....	H-7
H.15 PROPOSAL EVALUATION FOR GOVERNMENT-IDENTIFIED DELIVERY ORDERS (May 1998).....	H-23
H.16 REQUIREMENTS FOR INITIAL PROPOSAL CONTENTS FOR CONTRACTOR- IDENTIFIED DELIVERY ORDERS (May 1998).....	H-25
H.17 EVALUATION OF INITIAL PROPOSALS FOR CONTRACTOR-IDENTIFIED DELIVERY ORDERS (May 1998).....	H-26
H.18 PREAWARD REQUIREMENTS (May 1998).....	H-26
H.19 OFFICIALS AUTHORIZED TO ISSUE DELIVERY ORDERS (May 1998).....	H-28
H.20 AVAILABILITY OF UTILITIES (May 1998).....	H-28
H.21 CONTRACTOR-FURNISHED MATERIAL (May 1998).....	H-29
H.22 GOVERNMENT PROPERTY REGULATIONS (May 1998).....	H-29
H.23 FIRE PREVENTION (May 1998).....	H-29
H.24 ENVIRONMENTAL PROTECTION (May 1998).....	H-29
H.25 SALVAGE (May 1998).....	H-30
H.26 ASBESTOS (May 1998).....	H-30
H.27 DISPOSAL (May 1998).....	H-30
H.28 SAFETY REQUIREMENTS (May 1998).....	H-30
H.29 SECURITY REQUIREMENTS (May 1998).....	H-31
H.30 PASSES AND BADGES (May 1998).....	H-31
H.31 IDENTIFICATION OF CONTRACTOR EMPLOYEES (May 1998).....	H-32
H.32 IDENTIFICATION OF CONTRACTOR VEHICLES (May 1998).....	H-32
H.33 ACCESS TO BUILDINGS (May 1998).....	H-32
H.34 CONTRACTOR EMPLOYEES (May 1998).....	H-33
H.35 REQUIRED INSURANCE (May 1998).....	H-33
H.36 TITLE TO CONTRACTOR-INSTALLED EQUIPMENT (May 1998).....	H-34
H.37 NOTICE OF PAYMENT AND PERFORMANCE BOND REQUIREMENTS (May 1998).....	H-34
H.38 RESPONSIBILITY FOR LOSS OR DAMAGE TO CONTRACTOR PROPERTY (May 1998).....	H-36
H.39 PERMITS (May 1998).....	H-36
H.40 PROTECTION OF FINANCIER'S INTEREST (May 1998).....	H-36
H.41 RESPONSIBILITY FOR SYSTEMS AND EQUIPMENT THROUGHOUT THE DELIVERY ORDER TERM (May 1998).....	H-37
H.42 FINAL YEAR SHORTFALLS - REIMBURSEMENT SCHEDULE (May 1998).....	H-37
H.43 WORK SCHEDULE REQUIREMENTS (May 1998).....	H-37
H.44 DEFINITIONS OF TERMS APPLICABLE TO THIS CONTRACT (May 1998).....	H-37
H.45 WAGE DETERMINATION (May 1998).....	H-42
H.46 ADDITIONAL CLAUSES FOR SPECIFIC DELIVERY ORDERS (May 1998).....	H-42

H.47	LIQUIDATED DAMAGES (May 1998)	H-42
H.48	ADDITIONAL DELIVERY ORDER CLAUSES FOR WORK ON DOE FACILITIES HAVING CLASSIFIED INFORMATION (May 1998)	H-42
H.49	USE OF NON-GOVERNMENT PERSONNEL IN EVALUATIONS (May 1998)	H-43

SECTION I - CONTRACT CLAUSES

I.1	52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)	I-1
I.2	52.223-3 HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (JAN 1997) A	
I.3	52.227-23 RIGHTS TO PROPOSAL DATA (TECHNICAL) (JUN 1987)	I-6
I.4	52.244-1 SUBCONTRACTS (FIXED-PRICE CONTRACTS) (FEB 1995)	I-6
I.5	952.202-1 DEFINITIONS (OCT 1995)	I-8
I.6	952.208-70 PRINTING (APR 1984)	I-9
I.7	952.223-72 RADIATION PROTECTION AND NUCLEAR CRITICALITY (APR 1984) ..	I-10
I.8	952.223-75 PRESERVATION OF INDIVIDUAL OCCUPATIONAL RADIATION EXPOSURE RECORDS (APR 1984)	I-10
I.9	952.245-2 GOVERNMENT PROPERTY (FIXED-PRICE CONTRACTS) (DEC 1989) ..	I-10
I.10	970.5204-2 INTEGRATION OF ENVIRONMENT, SAFETY, AND HEALTH INTO WORK PLANNING AND EXECUTION (JUN 1997)	I-13
I.11	970.5204-59 WHISTLEBLOWER PROTECTION FOR CONTRACTOR EMPLOYEES (JAN 1993)	I-15

SECTION J - LIST OF ATTACHMENTS

J-1

SECTION K REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS

K.1	52.203-2 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (APR 1985)	K-1
K.2	52.203-11 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (APR 1991)	K-2
K.3	52.204-3 TAXPAYER IDENTIFICATION (JUN 1997)	K-2
K.4	52.204-5 WOMEN-OWNED BUSINESS (OCT 1995)	K-3
K.5	52.204-6 DUNS UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER (APR 1998) ..	K-4
K.6	52.209-5 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS (MAR 1996)	K-4
K.7	52.215-4 TYPE OF BUSINESS ORGANIZATION (OCT 1997)	K-5
K.8	52.215-6 PLACE OF PERFORMANCE (OCT 1997)	K-6
K.9	52.219-1 SMALL BUSINESS PROGRAM REPRESENTATIONS (FEB 1998)	K-6
K.10	52.219-19 SMALL BUSINESS CONCERN REPRESENTATION FOR THE SMALL BUSINESS COMPETITIVENESS DEMONSTRATION PROGRAM (JAN 1997)	K-7
K.11	52.219-21 SMALL BUSINESS SIZE REPRESENTATION FOR TARGETED INDUSTRY CATEGORIES UNDER THE SMALL BUSINESS COMPETITIVENESS DEMONSTRATION PROGRAM (JAN 1997)	K-8
K.12	52.222-21 CERTIFICATION OF NONSEGREGATED FACILITIES (APR 1984)	K-9
K.13	52.222-22 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (APR 1984)	K-9
K.14	52.222-25 AFFIRMATIVE ACTION COMPLIANCE (APR 1984)	K-10
K.15	52.223-1 CLEAN AIR AND WATER CERTIFICATION (APR 1984)	K-10
K.16	52.223-13 CERTIFICATION OF TOXIC CHEMICAL RELEASE REPORTING (OCT 1996)	K-10
K.17	52.225-1 BUY AMERICAN CERTIFICATE (DEC 1989)	K-11

SECTION L - INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS

L.1	FAR 52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)	L-1
L.2	52.215-20 REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA (OCT 1997) ALTERNATE IV (OCT 1997) ..	L-1
L.3	52.216-1 TYPE OF CONTRACT. (APR 1984)	L-1

L.4952.233-2	SERVICE OF PROTEST (AUG 1996)	L-2
L.5952.233-4	NOTICE OF PROTEST FILE AVAILABILITY (SEP 1996)	L-2
L.6952.233-5	AGENCY PROTEST REVIEW (SEP 1996)	L-3
L.7	DOE ISSUING OFFICE MAILING ADDRESS AND POINT OF CONTACT (APR 1998)	L-3
L.8	AMENDMENT OF THE SOLICITATION (APR 1998)	L-3
L.9	TIME, DATE AND PLACE PROPOSALS ARE DUE (MAY 1997)	L-4
L.10	INTENTION TO PROPOSE (APR 1984)	L-5
L.11	EXPENSES RELATED TO PROPOSAL OR BID SUBMISSIONS (MAY 1997)	L-5
L.12	SITE TOUR PLAN (MAY 1998)	L-6
L.13	PROJECT SITE DATA PACKAGE (MAY 1998)	L-6
L.14	SMALL BUSINESS SIZE STANDARD AND SET-ASIDE INFORMATION ALTERNATE I (MAY 1998)	L-8
L.15	NUMBER OF AWARDS (May 1997)	L-8
L.16	ALTERNATE PROPOSAL INFORMATION - NONE (MAY 1997)	L-8
L.17	PROPOSAL PREPARATION INSTRUCTIONS - GENERAL (MAR 97)	L-8
L.18	PROPOSAL PREPARATION INSTRUCTIONS - VOLUME I, OFFER AND OTHER DOCUMENTS (APR 1997)	L-9
L.19	PROPOSAL PREPARATION INSTRUCTIONS - VOLUME II, TECHNICAL PROPOSAL (May 1998)	L-11
L.20	PROPOSAL PREPARATION INSTRUCTIONS - VOLUME III, PRICE PROPOSAL - OTHER (May 1998)	L-24
L.21	NOTICE OF LABOR PROVISIONS (MAY 1997)	L-38
L.22	DISPOSITION OF PROPOSALS OR BIDS (MAY 1997)	L-38
L.23	QUESTIONS CONCERNING THE SOLICITATION (MAY 1998)	L-38
L.24	CONTRACT BASE PERIOD (MAY 1998)	L-39
L.25	USE OF NON-GOVERNMENT PERSONNEL IN EVALUATIONS (MAY 1998)	L-39
L.26	MULTIPLE AWARD TASK ORDER CONTRACTS (MAY 1997)	L-39
L.27	PREBID CONFERENCE-NONE (MAY 1997)	L-39
L.28	DISCUSSIONS WITH OFFERORS (ALTERNATE 1) (MAY 1997)	L-40
L.29	CONTENT OF RESULTING CONTRACT (MAY 1997)	L-40
L.30	ATTACHMENTS TO SECTION L	L-40
SECTION M -	EVALUATION FACTORS FOR AWARD	M-1
M.1	GENERAL (MAY 1998)	M-1
M.2	EVALUATION CRITERIA (MAY 1998)	M-1
M.3	OVERALL RELATIVE IMPORTANCE OF EVALUATION CRITERIA (MAY 1998)	M-5
M.4	ELIGIBILITY FOR AWARD AND AWARD OF INITIAL DELIVERY ORDER (MAY 1998)	M-5
M.5	PREAWARD SURVEY (MAY 1998)	M-6
M.6	QUALIFICATION CRITERIA (MAY 1998)	M-6

ATTACHMENT A SAMPLE REPORTING REQUIREMENTS CHECKLIST FOR DELIVERY ORDERS

ATTACHMENT B HISTORY OF FEDERAL ENERGY LEGISLATION THAT ASSIGNS TEMPERATURE SET POINTS, VENTILATION REQUIREMENTS, AND LIGHTING LEVELS

ATTACHMENT C DOE QUALIFIED LIST OF ENERGY SERVICES CONTRACTORS

ATTACHMENT D SITE TOUR INFORMATION AND REQUEST FORMS

ATTACHMENT E INTENTION TO PROPOSE FORM

ATTACHMENT F PAST PERFORMANCE INFORMATION FORM

SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS**B.1 ITEMS BEING ACQUIRED/TOTAL PRICE (May 1998)**

The Contractor shall furnish all personnel, facilities, equipment, material, supplies, and services (except as may be expressly set forth in this contract as furnished by the Government) and otherwise do all things necessary for, or incident to, performance of the following items of work:

Item 1 - GHP-centered energy conservation and maintenance services for federal agency sites throughout the entire U.S., the District of Columbia, and U.S. Territories.

Item 2 - Reports in accordance with Reporting Requirements Checklist which will be included in the individual delivery orders.

The sum of Contractor payment streams associated with all delivery orders issued during the initial ordering period against all IDIQs awarded as a result of this acquisition shall not exceed \$500,000,000.

B.2 REQUIRED SERVICES (May 1998)

The Government requires GHP-centered energy conservation and maintenance services for federal Government facilities located throughout the entire U.S., the District of Columbia, and all U.S. Territories and seeks to obtain these services using this indefinite delivery/indefinite quantity energy savings performance contract (IDIQ ESPC).

The successful awardees will provide, at no capital cost to the Government, all labor, material, and equipment necessary to implement GHP-centered projects and provide cost savings at specific sites covered by delivery orders placed against the national IDIQ contracts awarded. Contracted delivery order services may also include operations and maintenance services during a specific delivery order term, as required in the technical section of this specification, the specific delivery order, and as proposed by the contractor and accepted by the Government.

B.3 52.216-22 INDEFINITE QUANTITY. (OCT 1995)

(a) This is an indefinite quantity contract for the supplies or services specified, and effective for the period stated, in the Schedule. The quantities of supplies and services specified in the Schedule are estimates only and are not purchased by this contract.

(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. The Contractor shall furnish to the Government, when and if ordered, the supplies or services specified in the Schedule up to and including the quantity designated in the Schedule as the "maximum". The Government shall order at least the quantity of supplies or services designated in the Schedule as the "minimum".

(c) Except for any limitations on quantities in the Order Limitations clause or in the Schedule, there is no limit on the number of orders that may be issued. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.

(d) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if

the order were completed during the contract's effective period; provided, that the Contractor shall not be required to make any deliveries under this contract after twenty-five years after contract award date.

B.4 52.216-19 ORDER LIMITATIONS. (OCT 1995)

(a) Minimum order. When the Government requires supplies or services covered by this contract in an amount of less than \$150,000, the Government is not obligated to purchase, nor is the Contractor obligated to furnish, those supplies or services under the contract.

(b) Maximum order. The Contractor is not obligated to honor:

- (1) Any order for a single item in excess of \$20,000,000;
- (2) Any order for a combination of items in excess of \$20,000,000; or
- (3) A series of orders from the same ordering office within 30 days that together call for quantities exceeding the limitation in subparagraph (1) or (2) above.

(c) If this is a requirements contract (i.e., includes the Requirements clause at subsection 52.216-21 of the Federal Acquisition Regulation (FAR)), the Government is not required to order a part of any one requirement from the Contractor if that requirement exceeds the maximum-order limitations in paragraph (b) above.

(d) Notwithstanding paragraphs (b) and (c) above, the Contractor shall honor any order exceeding the maximum order limitations in paragraph (b), unless that order (or orders) is returned to the ordering office within 30 days after issuance, with written notice stating the Contractor's intent not to ship the item (or items) called for and the reasons. Upon receiving this notice, the Government may acquire the supplies or services from another source.

B.5 52.216-18 ORDERING. (OCT 1995)

(a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders or task orders by the individuals or activities designated in the Schedule. Such orders may be issued beginning on the date of contract award through April 9, 2000.

(b) All delivery orders or task orders are subject to the terms and conditions of this contract. In the event of conflict between a delivery order or task order and this contract, the contract shall control.

(c) If mailed, a delivery order or task order is considered "issued" when the Government deposits the order in the mail. Orders may be issued orally, by facsimile, or by electronic commerce methods only if authorized in the Schedule.

B.6 MAXIMUM MARGINS(May 1998)

Schedule B-1 presents maximum implementation margins by technology category for all delivery orders under the IDIQ contract. The Government intends to seek lower margins on individual delivery orders by means of negotiations where appropriate. See H.44 for the definition of implementation margin.

(a) Multiple Technology Category Projects. All Energy Conservation Measures (ECMs) fall within a specific technology category, and each technology category has a maximum margin in Schedule B-1. In any delivery order, the percent margin applied to ECM implementation expenses to derive ECM implementation prices shall not exceed the maximum for the technology category that includes the ECM. The sum of all ECM implementation prices equals the delivery order implementation price. If an ECM is proposed that does not fall into one of the technology categories listed, the percent margin for the most closely related technology category will be used, subject to approval of the contracting officer.

(b) Survey, Feasibility Study, and Design. The percent margins for the "survey, feasibility study, and design" category are not applicable to this contract except in cases where such costs were incurred after the contracting officer provided written notification of intent to award a delivery order, and the costs cannot rationally be assigned to a specific ECM; or where, after receiving written notification of intent to award a delivery order, contractor proceeds and negotiates in good faith and the Government determines that it is in its' best interest to pursue the project in question through means other than this contract or with funds other than the contractor's.

SCHEDULE B-1 -- IDIQ Maximum Implementation Margins By Technology Category

PRIMARY TECHNOLOGY CATEGORY	MAXIMUM MARGIN (%)
1. Geothermal Heat Pump (GHP) Systems	

ASSOCIATED TECHNOLOGY CATEGORY	MAXIMUM MARGIN (%)
2. Building Automation Systems/Energy Management and Control Systems	
3. Lighting Improvements	
4. Building Envelope Modifications	
5. Electric Motors and Drives	
6. Appliance/Plug Load Reductions	
7. Central Utilities Modifications	
8. Energy Cost Reduction through Rebates and Rate Reduction	
9. Survey, Feasibility Study and Design	

Schedule B-2 presents the maximum performance period margin for all delivery orders under the IDIQ contract. The Government intends to seek lower margins on individual delivery orders by means of negotiations where appropriate. See H.44 for the definition of performance period margin.

SCHEDULE B-2 -- IDIQ Maximum Performance Period Margin

PERIOD	MAXIMUM MARGIN (%)
Performance Period	

B.7 FINANCE CHARGE (May 1998)

Schedule B-3 presents the maximum, fixed, annual percentage rate that, when added to the like-term (i.e., T-Bill/T-Note term closest to the proposed performance period term) Treasury Bill/Treasury Note Index interest rate will be the total annual percentage interest rate (not including financing procurement price, defined in H.44) that the contractor will charge the Government for financing all delivery orders under the IDIQ contract. The Government intends

to seek lower total annual percentage interest rates on individual delivery orders by means of negotiations where appropriate.

SCHEDULE B-3 -- IDIQ Maximum Finance Charge By Delivery Order
Performance Period Term And Amount Financed

Performance Period Term	Treasury Note Index	<\$500k	\$500k- \$1M	\$1M - \$3M	\$3M - \$7M	\$7M +
0 - 3 years	3 year					
4 - 6 years	5 year					
7 - 10 years	10 year					
11 - 25 years	(Specify Index)					

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

C.1 GENERAL REQUIREMENTS/PROJECT SCOPE (May 1998)

This procurement is to acquire, under energy savings performance, indefinite delivery/indefinite quantity contract(s), GHP-centered energy conservation services in the 50 states, District of Columbia, and U.S. Territories to reduce energy and water consumption and related ancillary costs (including operations and maintenance costs) as specified in each delivery order. The Contractor shall be responsible for providing all labor, material, and capital to install the GHP-centered retrofit projects and shall provide operations and maintenance as specified within each delivery order. The scope of the IDIQ contract includes all Federal-owned facilities located in the region defined above unless otherwise restricted by each delivery order.

The cost of an ECM project must be covered by the reduced energy and related ancillary cost savings incurred at the Federal-owned facility. The energy cost savings must be verified annually. The IDIQ contract may be used by authorized Federal agencies to acquire energy conservation measures but without exception, delivery order projects must be centered on GHP systems as described in C.2. See Section H Clause "OFFICIALS AUTHORIZED TO ISSUE DELIVERY ORDERS."

C.2 ENERGY CONSERVATION MEASURES (ECMs) (May 1998)

C.2.1 GHP Systems

All delivery orders under this contract, without exception, shall be centered on one or more members of the family of proven geothermal heat pump (GHP) systems. These GHP systems are sometimes referred to as geo-exchange systems, ground-coupled systems, ground-source systems, earth-coupled systems, groundwater systems, surface water systems, standing column well systems, and waste water heat recovery systems.

The common denominator among all of these GHP systems is that the equipment used for space conditioning and/or for heating or chilling water, rejects heat to or extracts heat from a closed-loop of circulating water or anti-freeze which, in turn, is conditioned by heat exchange with a heat source/sink other than exclusively outdoor air. Common GHP system source/sinks used to condition the closed-loop working fluid include the ground, groundwater, surface water, various waste water streams, and potable supply water where allowed. Hybrid systems using several of these source/sinks, or outdoor air in combination with one or more of these source/sinks, are allowed where they make the overall GHP system more economic so long as the primary conditioning of the closed-loop is by other than outdoor air.

The GHP system is defined to include all components required to achieve a fully functional system for its intended purpose which generally includes, but is not limited to, heating, ventilation and air conditioning (HVAC) and/or water heating. Existing air distribution systems for space supply and return, or ventilation supply and exhaust, may be adapted for use in the GHP system, abandoned in place, or demolished and removed depending on Government preference and the specifics of the delivery order project. Likewise with any pre-existing HVAC piping distribution systems.

GHP systems are flexible in their design and, depending on Government preferences and the specifics of the project, may or may not include efficiency enhancing features, such as, but not limited to

- existing ventilation supply/exhaust fan replacement for right-sizing
- existing pump replacement for right-sizing, or impeller trimming
- outside air quantity reduction (e.g., current space use differs from original use)
- heat recovery to pre-treat ventilation air
- variable volume pumping
- primary/secondary pumping
- conversions from central to distributed multi-unit hot water systems
- dedicated water-to-water heat pumps to precondition or generate hot water
- desuperheaters on heat pumps to precondition or generate supplemental hot water
- water-side economizers
- air-side economizers

C.2.2 Energy Conservation Measures in Associated Technology Categories

ECMs in associated technology categories are also allowed under the IDIQ contract. When implemented in the same buildings with GHPs, such ECMs result in a decrease in the required GHP capacity and/or an increase in overall GHP system efficiency. When implemented elsewhere such ECMs enable the federal site to capture all of the

economically-obtainable cost savings made possible by the GHP-centered project. This contract and its delivery orders may include ECMs in the following associated technology categories:

1. (See Section C.2.1 GHP Systems. Technology category #1 refers to the primary technology category, which is GHP Systems).
2. Building Automation System (BAS)/Energy Management Control System (EMCS), such as, but not limited to
 - install EMCS system with GHP system
 - upgrade or replace existing EMCS system to enable interface to GHP system
 - control GHP system to accomplish electrical peak shaving
3. Lighting Improvements, such as, but not limited to
 - interior lighting replacements
 - lighting control improvements
 - occupancy sensors
 - LED exit sign installation
 - daylighting
4. Building Envelope Modifications, such as, but not limited to
 - insulation installation
 - weatherization
 - window replacement
 - window treatments to reduce solar gain
5. Electric Motors and Drives, such as, but not limited to
 - motor replacement with premium efficiency motors
 - variable speed motors or drives
6. Appliance/Plug Load Reductions, such as, but not limited to
 - replace air-cooled ice/refrigeration equipment with premium efficiency water-cooled equipment connected to the GHP common loop
 - replace refrigerators with premium efficiency refrigerators
 - de-lamp vending machines
 - place plug timers on appliances and/or equipment
7. Central Utilities Modifications, such as, but not limited to
 - boiler control modifications so that the remaining boiler load is satisfied as efficiently as possible
 - chiller control modifications so that the remaining chiller load is satisfied

- as efficiently as possible
 - isolation valves on steam, hot water or chilled water lines no longer needed
 - transformer right-sizing, power factor correction, etc. so that the remaining electrical load is satisfied as efficiently as possible
8. Energy Cost Reduction Through Rebates and Rate Reduction
- secure demand-side management rebates (where applicable)
 - recommend change to more favorable rate schedule
 - recommend Government negotiate lower rate, same supplier
 - recommend lower energy cost supplier (where applicable)

C.2.3 Restrictions on proposed ECMs.

ECM's installed by the contractor shall not do the following:

1. jeopardize the operation or environmental conditions of dedicated computers or computer rooms,
2. violate any Federal, State or local groundwater protection or usage regulations,
3. result in an adverse effect upon the quality of the human environment (e.g. requires the preparation of an Environmental Impact Statement) or violates any Federal, State, or local environmental protection regulations,
4. degrade performance or reliability of existing Government equipment,
5. reduce extra capacity that was intentionally included for future growth, mobilization needs, safety, or emergency back-up,
6. violate current versions of national (i.e., National Electric Code, Uniform Building Code, etc.), State or local building codes.

Any additional restrictions on ECM's will be specified in delivery orders issued under the contract.

C.2.4 Contract Requirements for ECMs

Installed ECMs shall comply with the requirements of each delivery order. Contract requirements also incorporate all Government approved contractor submittals, including: equipment design and installation specifications, compliance with codes and standards,

design drawings, installation schedules, startup and testing procedures, operating and maintenance procedures, and any other submittals incorporated in delivery orders issued under the contract.

C.3 FACILITY PERFORMANCE REQUIREMENTS OF ECMs (May 1998)

Installed ECMs shall meet the performance requirements specified below unless stated otherwise in each delivery order.

- C.3.1 **Environmental & Lighting Conditions:** Modifications to building lighting systems and environmental control systems shall not be permitted to exceed the ranges for Standards of Service specified in Paragraph C.3.2. Where automated control of lighting or environmental conditions are to be installed, the occupants must have the ability to override the system to accommodate required overtime work.
- C.3.2 **Standards of Service:** Installed ECM's shall comply with the Standards of Service required for facilities as specified in each delivery order. The standards of service will include acceptable temperature and humidity ranges, air quality parameters, lighting levels, and other related factors. A history of energy legislation is contained in Section J, Attachment B for general information.
- C.3.2.1 **GHP Systems.** See the federal legislative history for assigning temperature set points and ventilation requirements in Section J, Attachment B.

a. Occupied Areas:

1) Comfort Range:

68° - 78°F dry bulb
30% - 60% relative humidity

2) In general occupied areas (except computer rooms) the following setbacks may be performed. During unoccupied periods during the heating season, the temperature may be reduced to 55°F dry bulb. During unoccupied periods during the cooling season, the GHP system may be turned off. However, the system must be designed so that it will restart if the temperatures approach levels that could damage equipment. In any case, temperatures must be restored to the 68° - 78°F dry-bulb range by the start of the next occupied period.

3) Outside air cannot be reduced below the cubic feet per minute (CFM) per person value

found in ASHRAE 62-89 (or most current version), "Ventilation for Acceptable Indoor Air Quality".

b. Computer Rooms

1) Operating Range:

70° - 74°F dry bulb (or based on Mfr. specs)
45% - 55% relative humidity

2) No environmental control system temperature setbacks will be allowed in computer rooms.

c. The GHP control system must be compatible with the present energy management control system. Thermostatic tolerance must be within plus or minus one degree Fahrenheit for all areas listed in C.3.2.1b and plus or minus two degrees Fahrenheit for areas in C.3.2.1a. Any system temperature change required for the operating rooms must not exceed 1 degree F in five (5) minutes.

d. Hospitals may have special requirements.

C.3.2.2 Lighting Systems. See the federal legislative history for assigning lighting levels in Section J, Attachment B.

a. Except where special circumstances exist, illumination levels shall be maintained as near as practical to the following standards:

1) 50 foot-candles at work station surfaces, measured at a height of 30 inches above floor level during working hours (For visually difficult or critical tasks, additional lighting may be authorized by the individual agencies administering each delivery order).

2) as near as practical to 30 foot-candles in work areas during working hours, measured 30 inches above floor level.

3) as near as practical to 10 foot-candles, but not less than 1 foot-candle in non-work areas during working hours (normally this will require levels of 5 foot-candles at the elevator boarding areas, a minimum of 1 foot-candle at the middle of corridors and stairwells as measured at the walking surface and 10 foot-candles in storage areas.

4) Refer to individual delivery orders for special requirements.

b. Additional performance requirements of lighting systems:

- 1) Replaced fixtures shall be equipped with T-8 lamps.
- 2) Total Harmonic Distortion of electronic ballasts used in fluorescent fixture retrofits shall not exceed 15%.
- 3) Occupancy sensors shall be infrared and motion sensing.
- 4) Light fixture lenses shall be A12.125

c. Installation of T-12 lamps shall not be allowed.

d. Parabolic louvers are preferred to reduce glare on computer monitor screens.

C.4 MEASUREMENT AND VERIFICATION OF ECM PERFORMANCE (May 1998)

This section provides an overview of the different measurement and verification (M&V) procedures and options that the contractor may be required to follow at different Federal facilities where they install ECMs. Each delivery order awarded shall specify the actual M&V requirements and procedures that shall apply to the delivery order based on various factors such as type of ECM, projected value of energy savings, certainty/uncertainty of savings being achieved, and the intended risk allocation between the Federal agency and the contractor.

The contractor shall comply with the version of the DOE/FEMP M&V Guidelines for Federal Energy Projects in effect at the time of delivery order award.

C.4.1 M&V General Approach

Measurement and verification (M&V) of projects has two components:

1. Confirming that (a) the baseline conditions were accurately defined and; (b) the proper equipment/systems were installed and they have the potential to generate the predicted savings. This confirmation verifies the ECM's potential to perform.
2. Determining the actual energy savings achieved by the installed ECM, which verifies the ECM's performance.

The general approach to verifying baseline and post-installation conditions involves inspections, spot measurement tests, and/or commissioning activities.

The general approach to determining energy savings involves comparing energy use associated with a facility, or certain systems within a facility, before and after installation of the ECM. The before case is called the baseline. The after installation case is called the post-installation case. Therefore,

$$\text{Energy savings} = \text{baseline energy use} - \text{post installation energy use}$$

As the ESPC program is based on "pay for performance", each ECM or site covered by a delivery order has a site-specific verification plan to determine the achieved savings. For each site, the project baseline and post installation energy use are defined using a combination of metering, billing analysis and/or engineering calculations. In addition, values for certain factors affecting energy use and savings, and that are beyond the control of the contractor, may be stipulated by the Federal agency.

After each delivery order project is constructed, the contractor shall submit a report that provides an initial verification of the performance being achieved and compares this with the proposed guaranteed savings. The purpose of this report is to provide early warning of any potential performance problems. First year payments shall be based on the offered or negotiated fixed price contractor payments (Schedule H-5, Column (b), Year 1).

For the remaining years of the delivery order term, the contractor provides annual verification reports. These reports include inspection documentation of the installed equipment/systems and (perhaps) updated savings values using data obtained and analyzed during each year of the delivery order. As necessary, previous year's payments will be reconciled according to instructions in section G.4 based on the results of the annual report compared to the guaranteed savings amount.

C.4.2 Baseline Energy Use

Baseline conditions may be defined by either the Federal agency or the contractor. If the baseline is defined by the Federal agency then the contractor will have the opportunity to verify the baseline. If the baseline is defined by the contractor then the Federal agency will verify the baseline.

C.4.3 Post Installation Energy Use - Initial Verification

Post installation energy use will be based, in part, on verification by the contractor and the Federal agency that the proper equipment/systems were installed, are operating correctly, and have the potential to generate the predicted savings. Verification methods may include visual inspections, spot or short-term metering, and engineering calculations.

System/equipment commissioning is expected to be completed by the contractor.

C.4.4 Post-Installation Energy Use - Determining Energy Savings Performance and Regular Interval Verification

The contractor and Federal agency, at defined intervals during the term of the delivery order, will verify that the installed equipment/systems have been properly maintained, continue to operate correctly, and continue to have the potential to generate the predicted savings.

There are numerous factors that can affect energy savings during the term of a delivery order, such as weather, operating hours, ton-hours, and heat exchanger fouling. The baseline definition generally accounts for some of these factors. In general, but not always, an ESPC delivery order objective will be to adjust the baseline energy use up or down for factors beyond the control of the contractor (e.g., building occupancy, plug load creep).

Therefore, in order to calculate energy savings, the Federal agency may, under certain circumstances, stipulate the value of factors that may vary during the term of the delivery order. For example with a lighting project, the Federal agency would measure lighting fixture power draw before and after the retrofit and then stipulate the operating hours of the lighting system.

For other projects, continuous or regular interval measurements may be collected throughout the term of the delivery order to determine energy savings. For example with a Variable Speed Drive (VSD) project, post installation motor energy use could be continuously metered.

C.4.5 M&V Option and Method Required for Specific Project

The delivery order may specify the M&V option(s) and method(s) that will be used for the project(s) or ECMs covered by the delivery order as well as any other specific details relevant to the M&V of the project(s) or ECMs.

C.4.6 M&V Activities

The contractor shall perform the following required M&V activities:

1. Define a site-specific plan for the particular project being installed once the project has been fully defined and the detailed survey is completed; this will occur before the delivery order is awarded and the plan will be incorporated into the delivery order.
2. Define pre-installation baseline including (a) equipment/systems, (b) baseline energy use, (c) system performance factors (e.g., lighting levels, temperature set points, time clock settings, etc.), and/or (d) actions to determine baseline energy use, which may include site surveys, spot--short term or long term metering,

analysis of billing data, and/or engineering calculations. The definition of pre-installation baseline may occur before or after the delivery order is awarded.

3. Define post installation including (a) equipment/systems, (b) post installation energy use and/or (c) actions to determine post installation energy use, which may include site surveys or spot--short-term or long-term metering, analysis of billing data, and/or engineering calculations.
4. Conduct annual M&V activities to verify operation of the installed equipment/systems and/or calculation of current year's energy savings.

C.5 INSTALLATION REQUIREMENTS FOR ECMs (May 1998)

C.5.1 ECM Installation Plans

- a) The contractor shall prepare and submit ECM installation plans to the Federal agency for review and approval prior to starting ECM installation in accordance with the Reporting Requirements Checklist. Installation plans shall be certified by a registered engineer to assure compliance with applicable building codes and Federal agency design standards. The delivery order will specify site specific requirements of ECM installation plans. The contractor is responsible for the technical adequacy of its work. Acceptance of the installation plans by the Government shall not relieve the contractor for adequacy of its design and installation work.
- b) The Installation plan due date will be specified in the delivery order. Upon approval of the installation plan, bonds will be required in accordance with H.37.
- c) ECM installation plans shall be prepared and include, at least the following, unless otherwise specified in the delivery order:
 1. Manufacturer's Data. For all ECM equipment to be installed the contractor shall provide the manufacturer's descriptive literature of equipment including drawings, diagrams, performance and characteristic curves, and catalog cuts.
 2. Shop Drawings. Shop drawings shall be prepared by the contractor, subcontractor, or any lower-tier subcontractor showing in detail:
 - The installation (i.e., form, fit, and attachment details) of the interface between ECM equipment and existing Government equipment.

- The location of installed equipment on building floor plans.
 - Certification of ECM Compliance with Building Codes and Standards. The contractor shall provide registered engineer certification that ECMs comply with all applicable building codes and standards. ECM installation plans submitted to the contracting officer without evidence of the professional engineer (PE) certification shall be returned for resubmission.
3. Planned Service Interruptions. If any utility services must be discontinued temporarily to install equipment, such interruptions shall be described and indicated on the project installation schedule (see subparagraph 6 below). The description shall include the length of the interruption, its time (date, day of week, time of day, etc.), and a justification.
 4. Site Plan and Compliance with Federal Site Exterior Architectural Plan. If an ECM involves the installation of facilities or exterior structures, the contractor shall provide a site plan showing its location. The Contractor shall also provide a plan and elevation drawings of the facility or exterior structure showing its size and exterior appearance.
 5. Acquisition of Permits. For any ECM installation requiring permits from regulatory agencies (i.e., hot-work permit for welding), the contractor shall provide its plan and schedule for acquiring such permits.
 6. Installation Schedules. The installation schedule shall show the order in which the contractor proposes to perform the work and the dates on which the contractor contemplates starting and completing all major milestones (including acquiring materials, equipment, permits). The schedule shall be in a form of a progress chart of suitable scale to indicate the amount of work scheduled for completion by any given date during the installation period.

C.5.2 Design and Construction Standards

1. The Delivery Order issued under the indefinite quantity contract(s) awarded will specify design and construction applicable to site or agency specific facility requirements. As a minimum, all ECMs, work, equipment and materials required for ECM installation shall comply with the most recent issue of the following standards:
 - American National Standards Institute (ANSI)
 - Code of Federal Regulations (CFR)

29 CFR 1910 Occupational Safety and Health Standards

10 CFR 435 Energy Conservation Voluntary Performance Standards for Commercial and Multi-Family High Rise Residential Buildings

29 CFR 1926 Safety and Health Regulations for Construction

- National Electric Code (NEC).
- National Electrical Safety Code (NESC).
- National Fire Protection Association (NFPA) Standards including, but not limited to NFPA 101 - Life Safety Code.
- National Electrical Manufacturers Association (NEMA).
- Underwriters Laboratory (UL).
- Uniform Building Code (UBC)
- ASHRAE 90.1
- Federal User's Manual, Performance Standards for New Commercial and Multi-Family High-Rise Residential Buildings
- Other standards required by the ordering federal agency
- Army Corps of Engineers Safety Manual

2. No requirement of this solicitation shall supersede applicable regulations, local codes and/or standards. Any violation of such regulations and standards shall be brought to the attention of the Contracting Officer for clarification prior to proceeding with the work.
3. If conflicts between codes and/or standards exist, the Contracting Officer's Representative and applicable authority having jurisdiction shall determine the appropriate code to follow.

C.5.3 ECM Quality Control Inspection Program

- a) The contractor shall be responsible for quality control during installation of ECMs. The contractor shall inspect and test all work performed during ECM installation to ensure compliance with the delivery order's performance requirements. The contractor shall maintain records of inspections and tests, including inspections and tests conducted by or for utility or other regulatory agencies. The contractor shall prepare a Quality Control Inspection Program for review and acceptance by the Government. The ECM Quality Control Inspection Program shall be prepared and submitted with the ECM Installation Plan in accordance with requirements set forth in the delivery order awarded.
- b) ECM Installation Quality Control Inspection Program shall detail the procedures, instructions, and reports that ensure compliance with the delivery order and this indefinite quantity contract. This plan shall include as a minimum:

1. The quality control organization, in chart form, showing the relationship of the quality control organization to the contractor's organization.
2. Names and qualifications of personnel in the quality control organization.
3. Area of responsibility and authority of each individual in the quality control organization.
4. A listing of outside organizations, such as testing laboratories, architects, and consulting engineers that will be employed by the Contractor, and a description of the services these firms will provide.
5. Procedures for reviewing all shop drawings, samples, certificates, or other submittals for delivery order and indefinite quantity contract compliance, including the name of the person(s) authorized to sign the submittals for the Contractor, as complying with the delivery order and indefinite quantity contract's requirements.
6. An inspection schedule, keyed to the installation schedule, indicating necessary inspections and tests, the names of persons responsible for the inspections and tests, and the time schedule for each inspection and test.
7. The procedures for documenting quality control operations, inspection, and testing, with a copy of all forms and reports to be used for this purpose. The contractor shall include a status log listing all submittals required by the inspection plan and stating the action required by the Contractor or the Government. The contractor shall also prepare and maintain a testing plan that shall contain a listing of all tests required by the delivery order or indefinite quantity contract's requirements.

C.5.4 Environmental Protection

ECMs shall cause no adverse impacts upon the quality of the human environment. Impacts on air quality (pollutants, noise level, and odors or fumes) and potable water use are examples of various areas of concern at the project site. Any planned building modifications shall comply with the National Environmental Policy Act (NEPA) and other applicable Federal, state, and local environmental protection regulations. Refer to paragraph H.24 titled Environmental Protection. The delivery order will identify specific known hazardous waste handling and storage requirements (e.g., PCB ballasts removed from lighting fixture retrofits).

C.5.5 Service Interruptions

1. For any planned utility service interruptions, the Contractor shall furnish a request to the Contracting Officer's designated representative for approval at least fifteen (15) working days in advance or as specified in the delivery order. The request shall identify the affected buildings and duration of planned outage.
2. The Government will coordinate with affected tenants and customers as applicable.
3. If the discontinued service is due to any emergency breakdown, the Contractor shall notify the Contracting Officer's designated representative as soon as possible and the Government will notify those affected tenants and customers as applicable.
4. Federal agencies may have additional requirements that may apply to specific delivery orders. These additional requirements may include liquidated damages for violations of service interruption provisions as may be specified in each particular delivery order.

C.5.6 As-Built Drawings

After completion of installation and Government acceptance of installed ECMs, the Contractor shall submit as-built drawings to the Contracting Officer or its designated representative in accordance with agency standards or specifications identified in the delivery order.

C.6 OPERATION OF ECMs (May 1998)

- C.6.1 Contractor installed ECM operations work includes all work and costs associated with operating energy producing and consuming systems. The operations work effort shall include operations tasks at specific stations, continuous or periodic equipment monitoring, and minor on-line equipment adjustments required to achieve all facility and energy conservation performance requirements of this contract.
- C.6.2 Unless specified otherwise in the delivery order, the contractor shall be responsible for operation of all ECMs installed. Installed ECMs shall include all contractor installed equipment and those portions of Government equipment which have been modified or replaced to achieve proposed ECM performance. Examples of exceptions that may be specified in a delivery order are:

1. If the new operations work requirement for Contractor installed ECMs is similar to an existing operations work requirement for Government-owned equipment and does not have an impact on Government resources, the Contractor may request the Government in its proposed ECM to perform operations work on Contractor-installed equipment. The Government reserves the right not to accept operations work on installed ECM.
2. The Contractor finds it advantageous and proposes to assume responsibility for an operation of Government equipment to ensure that the ECM will be implemented properly to reduce energy consumption. Any operations work provided by the contractor on Government-owned equipment shall be at the contractor's expense.
3. The Government currently utilizes bargaining unit employees, contracted services, or in-house labor and considers it advantageous to retain operations responsibility of the installed ECMs.

C.6.3 When the implementation of an ECM results in a change in an existing operations work affecting Government or contractor equipment, the Contractor shall prepare a new written operations work procedure for approval by the Government. The due date for the operations work procedure will be specified in the delivery order. The Contractor shall train Government personnel in the new approved operations work procedure. The Government will permit its personnel to attend training sessions at reasonable times on the specific project site's premises.

C.6.4 The Government will use and operate government-owned equipment, and contractor equipment if Government assumes proposed operations work in C.6.2.1 or C.6.2.3 above, in accordance with operating procedures provided by the Contractor and approved by the Contracting Officer. The Contractor shall monitor equipment performance.

C.6.5 The Government will not move, turn off, or otherwise change any Contractor-owned equipment without the consent of the Contractor, unless such action is in accordance with the operation procedures provided by the Contractor; or if it is necessary in an emergency to prevent loss of life, injury or damage to property, or severe discomfort to Government personnel, occupants, or patients.

C.7 MAINTENANCE OF ECMs (May 1998)

- C.7.1 Maintenance work includes all work and costs associated with maintaining the delivery order's specific site energy producing and consuming systems.

Maintenance work includes periodic equipment inspections, tests, calibrations, preventative maintenance tasks, and corrective maintenance actions required to ensure systems operate as intended.

- C.7.2 Unless otherwise specified in the delivery order, the contractor shall be responsible for maintenance of all ECMs installed. Installed ECMs shall include all contractor installed equipment and those portions of Government equipment that have been modified or replaced to achieve proposed ECM performance. Examples of exceptions that may be specified in a delivery order are:
1. If the maintenance work is similar to an existing maintenance work requirement for Government-owned equipment and does not impact on Government resources, the Contractor may request the Government in its proposal to perform maintenance work on Contractor-owned equipment. The Government reserves the right to not accept the proposed responsibility for maintenance work on installed ECMs. If the Government accepts ECM maintenance responsibility, the Government reserves the right to provide the maintenance work in accordance with its own schedule rather than a Contractor-suggested schedule.
 2. The Contractor proposes to assume responsibility for maintenance on Government-owned equipment in order to achieve proposed ECM performance. The Contractor may propose to provide either total maintenance or a level of maintenance needed to augment the existing maintenance provided by the Government. Any maintenance work provided by the Contractor on government-owned systems or equipment shall be at the Contractor's expense.
 3. The Government currently utilizes bargaining unit employees, contracted services, or in-house labor and considers it advantageous to retain maintenance responsibility of installed ECMs.
- C.7.3 When the implementation of an ECM changes existing equipment maintenance schedules, the Contractor shall prepare a new written maintenance work procedure for approval by the Government. The due date for the maintenance work procedure will be specified in the delivery order. The Contractor shall train Government personnel in the new approved maintenance work procedure. The Government will permit its personnel to attend training sessions at mutually agreed to times on the specific project site's premises.
- C.7.4 The Government will maintain government-owned equipment, and contractor equipment if the Government assumes the proposed maintenance work in C.7.2.1 or C.7.2.3 above, in accordance with

maintenance procedures provided by the Contractor and approved by the Contracting Officer.

- C.7.5 The Government will not move, turn off, or otherwise change any Contractor-owned equipment without the consent of the Contractor, unless such action is in accordance with the maintenance procedures provided by the Contractor, or if it is necessary in an emergency to prevent loss of life, injury or damage to property, or severe discomfort to Government personnel, visitors, occupants, or patients.

C.8 REPAIR OF ECMs (May 1998)

- C.8.1 Repair work includes all labor, material and equipment associated with the replacement or rebuilding of facilities, systems and equipment that have failed.
1. Contractor-Owned Items. When Contractor-owned facilities, systems, and equipment fail, the Contractor shall be responsible for repairs.
 2. Government-Owned Items. When Government-owned facilities, systems, and equipment fail, the Government will be responsible for repairs within a reasonable time period. The Contractor shall provide repairs, at no expense to the Government, if the Government-owned facilities, systems, and equipment failure is a result of actions on the part of the Contractor. The Contractor shall make repairs within a period of time as specified in the delivery order. If the Contractor elects to assume repair responsibilities for Government-owned systems or equipment as part of an ECM proposal, the delivery order shall include a listing of the types of repairs that will be the contractor's responsibility.

C.9 CONTRACTOR MAINTENANCE AND REPAIR RESPONSE TIME (May 1998)

- C.9.1 The contractor shall establish a point of contact (name and phone number) for use by the Government in providing response to Contractor equipment failures. The point of contact shall be available as specified in the delivery order throughout the delivery order's term. Initial telephone response to repair call messages shall be within the time frame specified in the delivery order. If a site visit is needed to repair equipment, repair personnel shall arrive on site within the time frame specified in the delivery order of the initial telephone response for non-emergency repairs or within the time frame specified within the delivery order for emergency repairs. Although normal contractor access is during the normal work hours specified for the specific site in the delivery order, the contractor may be granted

24-hour per day access to the buildings for emergency work, unless otherwise restricted in the delivery order.

C.9.2 Emergency maintenance and repair work is defined as maintenance or repair necessary to correct an imminent failure of Section C.4 standards of service or any action necessary to protect the safety or health of the facility occupants, unless otherwise specified in the delivery order.

C.9.3 In the event the contractor fails to respond as required in the delivery order or in the event of an emergency, the Government may perform emergency repairs to contractor-owned equipment. The contractor shall hold the Government harmless in such cases where the contractor fails to respond in emergencies.

C.10 OPERATIONS AND MAINTENANCE MANUALS AND TRAINING FOR ECMs (May 1998)

C.10.1 Operations and Maintenance Manuals

The contractor shall furnish operation and maintenance (O&M) manuals and recommended spare parts lists for O&M of the contractor-installed ECMs and modified Government equipment. O&M plans and spare parts lists shall be submitted per requirements set forth in the delivery order.

C.10.2 Government Personnel Training for ECMs

1. Thirty (30) days prior to the installation completion, the Contractor shall train Government personnel and/or Government Operation and Maintenance (O&M) contractors as required to operate, maintain, and repair ECM equipment and systems in the event of emergencies.
2. The Contractor shall train Government personnel and/or Government O&M contractors to operate, maintain, and repair ECM equipment ninety (90) days prior to the end of delivery order's term.
 - a. Training Program - General Requirements: The contractor shall provide a training program for Government personnel and/or Government O&M contractors as specified below. The program shall provide instruction on operation, troubleshooting, maintenance, and repair of ECMs. Training shall include both a classroom phase and a practical application phase. The course material shall include the operation and maintenance plans and manuals. The program shall be conducted at the delivery order's specified site(s) in facilities provided by the Government.